

Fig 1.

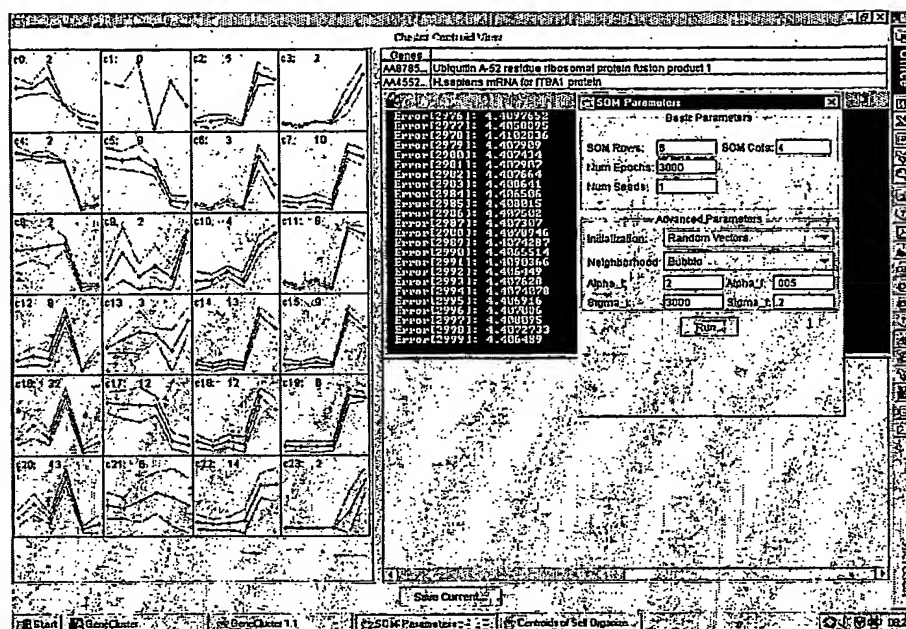


Fig 2

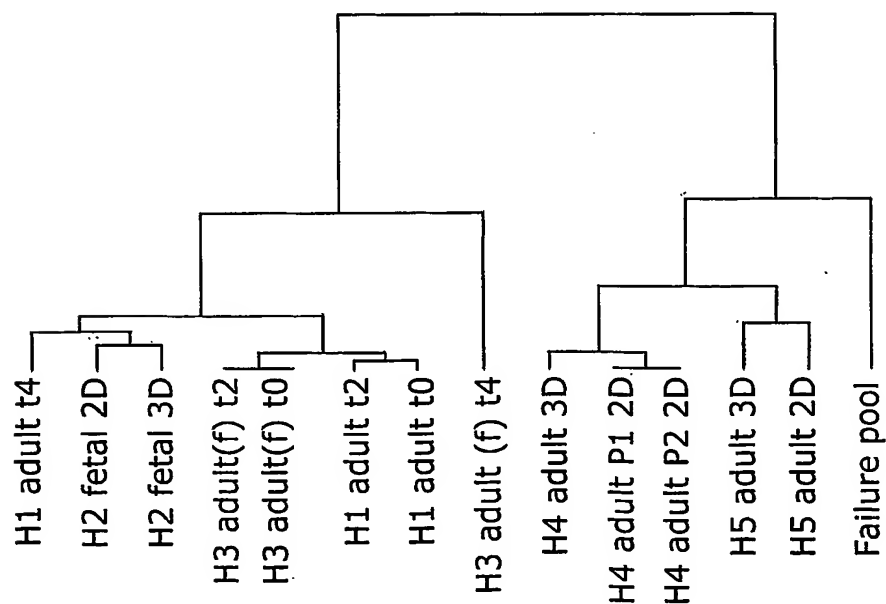


Fig 3

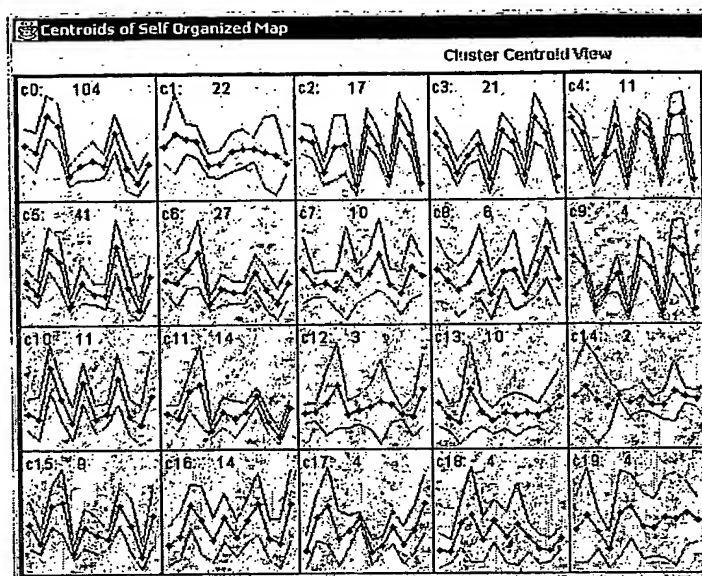


Fig 4

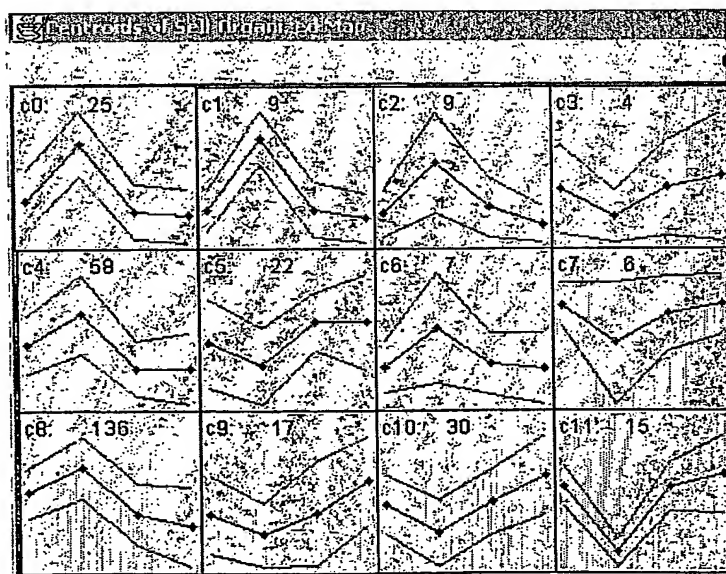


Fig 5

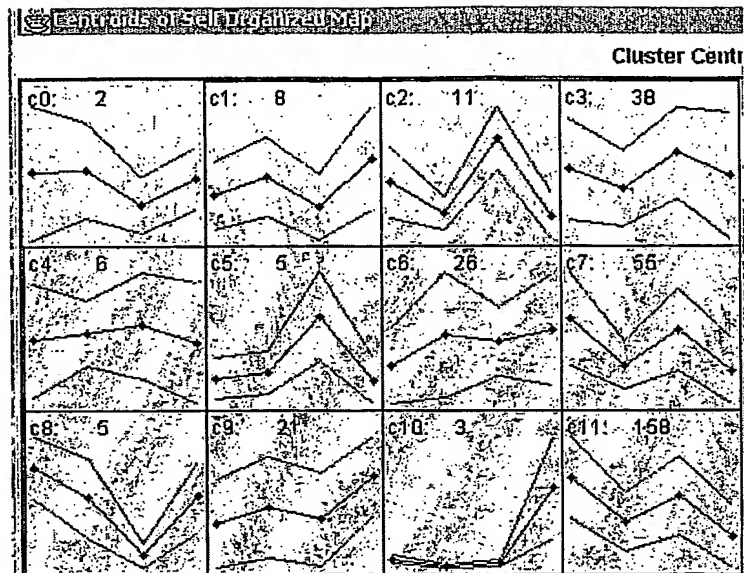


Fig 6

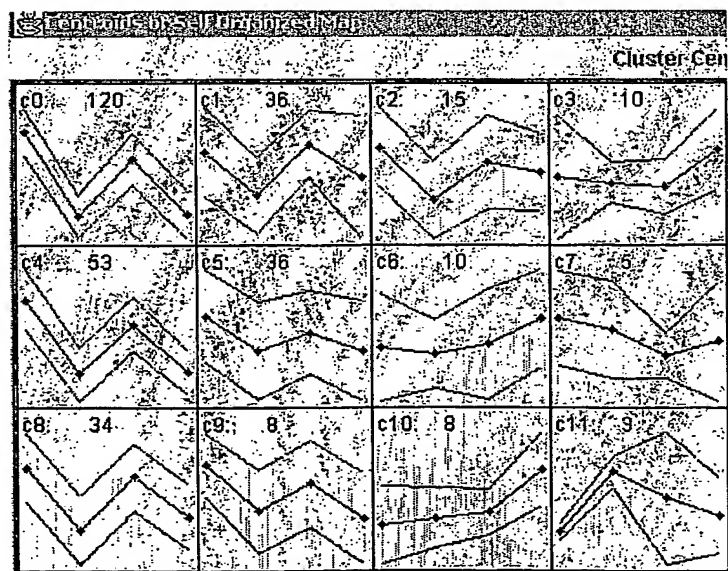
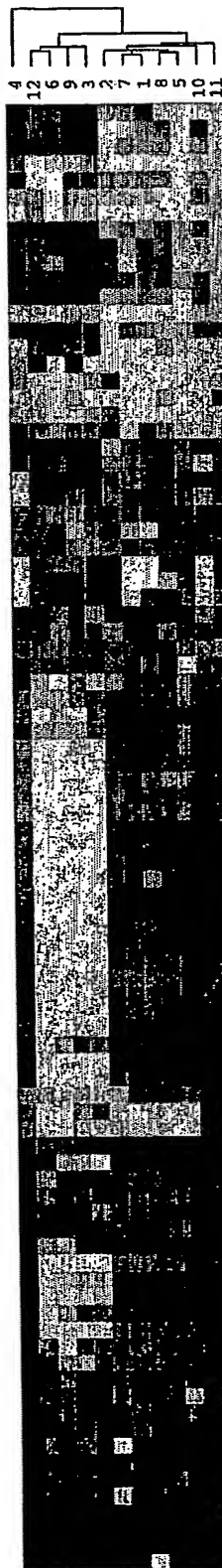


Fig 7



Homo sapiens mitogen activated protein kinase p38-2 mRNA, complete cds
 Homo sapiens pancreatic polypeptide PPY, mRNA
 Homo sapiens frizzled 1 mRNA, complete cds
 Homo sapiens chondroadherin CHAD, mRNA
 Human AMP deaminase AMPD3 mRNA, complete cds
 H. sapiens Pur pur-alpha mRNA, complete cds
 H. sapiens atk mRNA for agammaglobulinaemia tyrosine kinase
 Homo sapiens heparan sulfate proteoglycan 2 perlecan HSPG2, mRNA
 Homo sapiens integrin, beta 4 ITGB4, mRNA
 Human S-lac lectin L-14-II LGALS2 mRNA, complete cds
 Homo sapiens troponin I, skeletal, fast TNNI2, mRNA
 Homo sapiens retinoic acid receptor responder tazarotene induced 2 RARRES2, mRNA
 H. sapiens mRNA for PHAPI2b protein
 Homo sapiens glutathione-S-transferase like; glutathione transferase omega GSTTLP28, mRNA
 Homo sapiens biglycan BGN, mRNA
 Homo sapiens mRNA for chondromodulin-I precursor, complete cds
 Homo sapiens integrin, beta 2 antigen CD18 p95,
 Homo sapiens matrix metalloproteinase 2 gelatinase A, 72kD gelatinase
 Homo sapiens aggrecan 1 chondroitin sulfate proteoglycan 1
 Homo sapiens creatine transporter mRNA, complete cds
 Human mRNA for cone-specific cGMP phosphodiesterase gamma subunit, complete cds
 H. sapiens mRNA for CLPP
 Homo sapiens integrin binding protein Del-1 Dell mRNA, complete cds
 Homo sapiens tissue inhibitor of metalloproteinase 1 erythroid potentiating activity
 Homo sapiens collagen, type II, alpha 1, COL2A1, transcript variant 2, mRNA
 Homo sapiens transforming growth factor, beta-induced, 68kD TGFBI, mRNA
 Human mRNA for eukaryotic initiation factor 4A1
 H. sapiens dermatopontin mRNA, complete cds
 Homo sapiens matrix metalloproteinase 7 matrilysin, uterine MMP7, mRNA
 Human alpha-1 type XI collagen COL11A1 mRNA, complete cds
 Homo sapiens cytochrome c oxidase subunit VIc COX7C, mRNA
 Alpha tubulin
 Homo sapiens transketolase Wernicke-Korsakoff syndrome TKT, mRNA
 beta actin
 Homo sapiens insulin-like growth factor 1 somatomedia C IGF1, mRNA
 Human parathyroid hormone-related protein mRNA, complete cds
 Homo sapiens chloride channel 7 CLCN7, mRNA
 Homo sapiens RING zinc finger protein RZF mRNA, complete cds
 Homo sapiens osteoclast stimulating factor mRNA, complete cds
 Human B-cell leukemia/lymphoma 2 bcl-2 proto-oncogene mRNA encoding bcl-2-alpha protein
 Human zinc-finger protein C2H2-150 mRNA, complete cds
 Arabidopsis control oligo
 Human focal adhesion kinase FAK mRNA, complete cds
 Homo sapiens calpain 1, mu/I large subunit CAPN1, mRNA
 Homo sapiens S-adenosylmethionine decarboxylase 1 AMD1, mRNA
 Human frataxin FRDA mRNA, complete cds
 Human cleavage and polyadenylation specificity factor mRNA, complete cds
 H. sapiens COL10A1 gene for collagen alpha-1 type X
 Homo sapiens G1 to S phase transition 1 GSPT1, mRNA
 Homo sapiens matrix metalloproteinase 8 neutrophil collagenase MMP8, mRNA
 Homo sapiens interleukin 3 colony-stimulating factor, multiple IL3, mRNA
 Human cytochrome bc-1 complex core protein II mRNA, complete cds
 Human ERK1 mRNA for protein serine/threonine kinase
 Homo sapiens type 3 iodothyronine deiodinase mRNA, complete cds
 Homo sapiens GTP-binding protein RHO6, mRNA
 Human TATA-binding protein associated factor 30 kDa subunit tafII30 mRNA, complete cds
 Homo sapiens integrin, beta 1 fibronectin receptor, beta polypeptide
 Homo sapiens caspase 3, apoptosis-related cysteine protease CASP3, mRNA
 Homo sapiens CD36 antigen collagen type I receptor
 Homo sapiens integrin, alpha M complement component receptor 3, alpha
 Human chromatin assembly factor-I p60 subunit mRNA, complete cds
 Homo sapiens calponin 3, acidic CNN3, mRNA
 Homo sapiens hypoxanthine phosphoribosyltransferase 1 Lesch-Nyhan syndrome HPRT1, mRNA
 Human matrix Gla protein MGP mRNA, complete cds
 Human connective tissue growth factor, complete cds
 glyceraldehyde-3-phosphate dehydrogenase GAPDH mRNA
 Human helix-loop-helix basic phosphoprotein G0S8 mRNA, complete cds
 Homo sapiens fibrillin 1 Marfan syndrome FBN1, mRNA
 Homo sapiens visinin-like 1 VSNL1,
 Homo sapiens peptidylprolyl isomerase D cyclophilin D PPID, mRNA
 Homo sapiens lysosomal hyaluronidase LUCA2/HYAL2 mRNA, complete cds
 Homo sapiens MUF1 protein MUF1, mRNA
 Homo sapiens glypican 1 GPC1, mRNA
 Human somatostatin I gene and flanks
 Homo sapiens integral membrane protein 2A ITM2A, mRNA
 Homo sapiens group IIE secretory phospholipase A2 mRNA, complete cds
 Homo sapiens small inducible cytokine A5 RANTES SCYA5, mRNA
 Homo sapiens aggrecanase-2, ADAMTS5, mRNA
 Human p21-activated protein kinase Pak1 gene, complete cds
 Homo sapiens insulin-like growth factor binding protein 6 IGFBP6 mRNA, complete cds
 Homo sapiens ribosomal protein L30 mRNA, complete cds
 Homo sapiens leukemia inhibitory factor cholinergic differentiation factor LIF, mRNA
 Homo sapiens collagen, type VI, alpha 1 COL6A1, mRNA
 Homo sapiens collagen, type XVIII, alpha 1 COL18A1, mRNA
 Human phospholemman chloride channel mRNA, complete cds
 Homo sapiens growth-arrest-specific protein gas mRNA, complete cds
 Homo sapiens creatine kinase B mRNA, complete cds
 Human mRNA for alphaIX collagen long form

Fig 8



Donor 3 t1d4
Donor 1 t1d4
Aortic Fibroblasts
Donor 4 t1d4
Donor 2 t1d4

Human matrix Gla protein MGP mRNA, complete cds
Human helix-loop-helix basic phosphoprotein GOS8 mRNA, complete cds
Homo sapiens ribosomal protein L18 RPL18 mRNA, complete cds
Human vimentin gene, complete cds
Homo sapiens lumican LUM, mRNA
Human c-jun proto oncogene JUN, complete cds, clone hCJ-1
Homo sapiens mitochondrial coxII mRNA for cytochrome C oxidase II subunit
Human ribosomal protein S9 mRNA, complete cds
Homo sapiens mRNA for chondromodulin-I precursor, complete cds
Homo sapiens growth-arrest-specific protein gas mRNA, complete cds
Homo sapiens protein kinase C, beta 1 PRKCB1, mRNA
Homo sapiens platelet factor 4 PF4, mRNA
Human fibroblast growth factor-5 FGF-5 mRNA, complete cds
Human mitochondrial 1,25-dihydroxyvitamin D3 24-hydroxylase mRNA, complete cds
Homo sapiens integrin, beta 2 antigen CD18 p95, lymphocyte function-associated antigen 1
Homo sapiens integrin, alpha 2 CD49B, alpha 2 subunit of VLA-2 receptor ITGA2, mRNA
Human B-cell leukemia/lymphoma 2 bcl-2 proto-oncogene mRNA encoding bcl-2-alpha protein, complete cds
Human plectin PLECL1 mRNA, complete cds
Human focal adhesion kinase FAK mRNA, complete cds
Human gene for tumor necrosis factor TNF-alpha
Homo sapiens homeodomain protein BAPX1 mRNA, complete cds
Human parathyroid hormone-related protein mRNA, complete cds
Homo sapiens visinin-like 1 VSNL1, mRNA
Homo sapiens testis-specific Basic Protein Y 1 BPY1 mRNA, complete cds
Homo sapiens vascular cell adhesion molecule 1 VCAM1, transcript variant 2, mRNA
Homo sapiens a disintegrin-like and metalloprotease; aggrecanase-2 ADAMTS5, mRNA
Human Tat-SF1 mRNA, complete cds
Homo sapiens catechol-O-methyltransferase COMT mRNA, complete cds
Homo sapiens tensin TNS, mRNA
Homo sapiens heat shock 70KD protein 1B HSPA1B, mRNA
Homo sapiens MUF1 protein MUF1, mRNA
Homo sapiens mRNA for DNA-binding protein, complete cds
Human ADP/ATP translocase mRNA, 3' end, clone PHAT8
Homo sapiens collagen, type I, alpha 2 COL1A2, mRNA
Human mRNA for pro-alpha-1 type 3 collagen
Homo sapiens collagen, type XVIII, alpha 1 COL18A1, mRNA
Human phospholemman chloride channel mRNA, complete cds
Human checkpoint suppressor 1 mRNA, complete cds
Homo sapiens mRNA for protein phosphatase 2C gamma
Human hnRNP H mRNA, complete cds
Homo sapiens integrin, alpha L antigen CD11A p180
Homo sapiens frizzled 1 mRNA, complete cds
Human mRNA for alpha1IX collagen long form
Homo sapiens ribosomal protein L13 RPL13, transcript variant 1, mRNA
Homo sapiens eukaryotic translation initiation factor 5 EIF5, mRNA
Homo sapiens caspase 3, apoptosis-related cysteine protease CASP3, mRNA
Homo sapiens interleukin 6 interferon, beta 2 IL6, mRNA
Homo sapiens interleukin 8 IL8, mRNA
Homo sapiens decay accelerating factor for complement CD55, Cromer blood group system DAF, mRNA
Homo sapiens similar to chondroitin sulfate proteoglycan 2 versican H. sapiens LOC153633, mRNA
Homo sapiens eIF-2-associated p67 homolog mRNA, complete cds
Homo sapiens troponin I, skeletal, fast TNNT2, mRNA
Human p37NB mRNA, complete cds
Homo sapiens creatine kinase B mRNA, complete cds
H. sapiens P1-Cdc46 mRNA
Human Smad1 mRNA, complete cds
Homo sapiens integrin, beta 1 fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2
Human cytoskeleton associated protein CG22 mRNA, complete cds
Alpha tubulin
Homo sapiens matrix metalloproteinase 1 interstitial collagenase MMP1, mRNA
Homo sapiens chloride channel 7 CLCN7, mRNA
Homo sapiens RING zinc finger protein RZF mRNA, complete cds
Human pancreatic elastase IIA mRNA, complete cds
Homo sapiens regulator of G-protein signalling 4 RGS4, mRNA
Human I2-9 transcript of unrearranged immunoglobulin VH5 pseudogene
Human HLA-DMB mRNA, complete cds
Human putative tumor suppressor LUCA15 mRNA, complete cds
H. sapiens mRNA for VEGF-C protein
Human profilin mRNA, complete cds
Homo sapiens matrix metalloproteinase 3 stromelysin 1, progelatinase MMP3 gene, complete cds
Homo sapiens transforming growth factor, beta-induced, 68kD TGFBI, mRNA
Homo sapiens tissue inhibitor of metalloproteinase 1 erythroid potentiating activity, TIMP1, mRNA

Fig 9



P3 3D IL-116
P3 3D IL-17d
P3 3D 16a
P3 3D 7d

Homo sapiens integral membrane protein 2A ITM2A, mRNA
Homo sapiens small inducible cytokine A5 RANTES SCYA5, mRNA
Human ERK1 mRNA for protein serine/threonine kinase
Homo sapiens fibromodulin FMOD, mRNA
Homo sapiens collagen alpha 3 type IX COL9A3 mRNA, complete cds
H.sapiens dermatopontin mRNA, complete CDS
H.sapiens mRNA for leucine zipper protein
Homo sapiens fibronectin 1 FN1, mRNA
glyceraldehyde-3-phosphate dehydrogenase GAPDH mRNA, complete cds
Human mRNA for pro-alpha-1 type 3 collagen
phospholipase A2
Human alpha-1 type XI collagen COL11A1 mRNA, complete cds
Homo sapiens collagen, type II, alpha 1 primary osteoarthritis, spondyloepiphyseal dysplasia
Homo sapiens ATPase, Cu++ transporting, beta polypeptide Wilson disease ATP7B, mRNA
Homo sapiens homolog of the Aspergillus nidulans sudD gene product mRNA, complete cds
Homo sapiens cadherin 11, type 2, OB-cadherin osteoblast CDH11, transcript variant 1, mRNA
Homo sapiens cathepsin B CTSE, mRNA
Homo sapiens decorin DCN, mRNA
Homo sapiens SRY sex determining region Y-box 9 campomelic dysplasia
Human ribosomal protein S9 mRNA, complete cds
Homo sapiens nuclear autoantigenic sperm protein histone-binding NASP, mRNA
H.sapiens mRNA for Sop2p-like protein
Homo sapiens calpain 1, mu/I large subunit CAPN1, mRNA
Homo sapiens defender against cell death 1 DAD1, mRNA
Homo sapiens caspase 9, apoptosis-related cysteine protease CASP9, transcript variant alpha, mRNA
Human AMP deaminase AMPD3 mRNA, complete cds
Homo sapiens mRNA for leukemia associated gene 1
Homo sapiens pancreatic polypeptide PPY, mRNA
Homo sapiens msh homeo box homolog 2 Drosophila MSX2, mRNA
Homo sapiens creatine transporter mRNA, complete cds
Human cytoskeleton associated protein CG22 mRNA, complete cds
Homo sapiens collagen, type I, alpha 1 COL1A1, mRNA
Homo sapiens S-adenosylmethionine decarboxylase 1 AMD1, mRNA
H.sapiens mRNA for RIT protein
H.sapiens Pur pur-alpha mRNA, complete cds
Homo sapiens talin 1 TLN1, mRNA
Homo sapiens phosphatase and tensin homolog mutated in multiple advanced cancers 1 PTEN, mRNA
Homo sapiens peptidylprolyl isomerase D cyclophilin D PPID, mRNA
Homo sapiens matrix metalloproteinase 7 matrilysin, uterine MMP7, mRNA
Homo sapiens phosphoenolpyruvate carboxykinase 1 soluble PCK1, mRNA mRNA carboxykinase 1 soluble
Homo sapiens RING zinc finger protein RZF mRNA, complete cds
Homo sapiens RPL6 gene for ribosomal protein L6, complete cds
Homo sapiens cartilage oligomeric matrix protein pseudoachondroplasia, epiphyseal dysplasia 1
Homo sapiens ribosomal protein L18 RPL18 mRNA, complete cds
Homo sapiens hexabrachion tenascin C, cytactin HXB, mRNA
Homo sapiens biglycan BGN, mRNA
Homo sapiens bone morphogenetic protein 6 BMP6, mRNA
Homo sapiens osteoclast stimulating factor mRNA, complete cds
Homo sapiens collagen, type I, alpha 2 COL1A2, mRNA
Human tropomodulin mRNA, complete cds
Human insulin-like growth factor binding protein 5 IGFBP-5 mRNA, complete cds
Homo sapiens bone morphogenetic protein 9 BMP9 mRNA, complete cds
Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit ATP5D, mRNA
Homo sapiens interleukin 6 interferon, beta 2 IL6, mRNA
Homo sapiens cyclin D1 PRAD1: parathyroid adenomatosis 1 CCND1, mRNA
Homo sapiens platelet factor 4 PF4, mRNA
Homo sapiens integrin, beta 2 antigen CD18 p95, lymphocyte function-associated antigen 1
Homo sapiens tissue inhibitor of metalloproteinase 1 erythroid potentiating activity, TIMP1
Human taxi-binding protein TXBP181 mRNA, complete cds
Homo sapiens lipase A, lysosomal acid, cholesterol esterase Wolman disease LIPA, mRNA
Homo sapiens transketolase Wernicke-Korsakoff syndrome TKT, mRNA
Homo sapiens matrilin 1, cartilage matrix protein MATN1, mRNA
Homo sapiens GTP-binding protein RHOB, mRNA
Homo sapiens leukemia inhibitory factor cholinergic differentiation factor LIF, mRNA
Homo sapiens vascular cell adhesion molecule 1 VCAM1, transcript variant 2, mRNA
Homo sapiens growth-arrest-specific protein gas mRNA, complete cds
Homo sapiens mitogen activated protein kinase p38-2 mRNA, complete cds
Human transcription factor IL-4 Stat mRNA, complete cds
Human insulin-like growth factor binding protein 6 IGFBP6 mRNA, complete cds
Homo sapiens FOS-like antigen 1 FOSL1, mRNA
Homo sapiens integrin, beta 4 ITGB4, mRNA
Human putative tRNA synthetase-like protein mRNA, complete cds
Human mRNA for retinol binding protein RBP
Homo sapiens tissue inhibitor of metalloproteinase 2 TIMP2, mRNA
Homo sapiens collagen, type V, alpha 1 COL5A1, mRNA